

subjecting the magnetically aggregated cells to further biological, biochemical, and immunological examination.

18. (New) The detection method according to claim 17, wherein the further biological, biochemical, and immunological examination comprises characterizing specific genes at the DNA, mRNA, or protein level; polymerase chain reaction; or reverse transcriptase polymerase chain reaction.

19. (New) The detection method according to claim 1, further comprising:

establishing *in vitro* cell cultures from the separated paramagnetic particle-target-cell-complexes.

20. (New) The detection method according to claim 19, further comprising:

inoculating immunodeficient animals with cells from the *in vitro* cell cultures; and

correlating an effect of inoculating with the identity of the cell in the *in vitro* culture.

21. (New) The detection method according to claim 20, wherein the inoculation establishes a human tumor xenograft in the animals and the step of correlating identifies the cells as human tumor cells.